



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association
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Water Audit Report for: **City of Lompoc Water Division - Surface Water System (CA4210006B)**
Reporting Year: **2020** | **1/2020 - 12/2020**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

WATER SUPPLIED

Volume from own sources: 5 9.544 acre-ft/yr
Water imported: n/a 0.000 acre-ft/yr
Water exported: n/a 0.000 acre-ft/yr

Master Meter and Supply Error Adjustments

Pcnt: 3 Value: 0 0.000 acre-ft/yr
 0 0.000 acre-ft/yr
 0 0.000 acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 5 **9.544** acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered: 8 1.742 acre-ft/yr
Billed unmetered: n/a 0.000 acre-ft/yr
Unbilled metered: 3 2.745 acre-ft/yr
Unbilled unmetered: 5 0.024 acre-ft/yr

Click here: for help using option buttons below

Pcnt: 0 Value: 0 0.024 acre-ft/yr

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: 5 **4.511** acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

5.033 acre-ft/yr

Apparent Losses

Unauthorized consumption: 5 0.024 acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies: 5 0.023 acre-ft/yr

Systematic data handling errors: 5 0.004 acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 5 **0.051** acre-ft/yr

Pcnt: 0.25% Value: 0 0.000 acre-ft/yr

0.50% 0 0.000 acre-ft/yr
 0.25% 0 0.000 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 5 **4.982** acre-ft/yr

WATER LOSSES: 5 **5.033** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: 5 **7.802** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains: 10 3.5 miles
Number of active AND inactive service connections: 10 16
Service connection density: 5 5 conn./mile main

Are customer meters typically located at the curbside or property line? Yes

Average length of customer service line: 5 (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 3 110.0 psi

COST DATA

Total annual cost of operating water system: 10 \$110,000 \$/Year
Customer retail unit cost (applied to Apparent Losses): 5 \$7.54 \$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses): 5 \$232.02 \$/acre-ft ☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 57 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Volume from own sources
- 2: Unbilled metered
- 3: Customer metering inaccuracies

Water Audit Level 1 Validation- Validator Review & Certification Statement

Water System(s) This Audit Covers:

Public Water System Identification (PWSID)¹: CA 4210006B **Water System Name** City of Lompoc - Surface water System

List only 1 PWSID which should match the PWSID on the FWAS Instructions Tab. For Special cases where the audit covers multiple water systems connected with permanent two-way interties, list those additional PWSIDs in the Notes below and describe the water distribution system(s) configuration.
Notes (Provided to Validator by Water System):

Audit Period:

Validation Date: 12/16/2021

Water System Representatives:

Shaun Ryan

Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement: I certify this meets the requirements of 23 CCR 638.5 (b)(4)(A-C).

Key Audit Metrics:

Data Validity Score: 57 **Data Validity Band (level):** Band III (51-70) **ILI** N/A **Real Loss:** 1,270.85 (gal/mile/day)

Non-revenue water as percent of cost of operating system: 1.8 **Apparent Loss:** 2.83 (gal/conn/day)

Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit. ☒

If not, rejected recommendations are included here:

Validator Information:

Water Audit Validator: Larry L. & Will Jernigan **Validator Qualifications:** Water Audit Validator Certificate issued by the CA-NV Section of the AWWA

Validator Provided

Water Audit Level 1 Validation- Water System Certification Statement

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Notes:

Water Audit & Water Loss Improvement Steps:

1. Steps Taken: Water System to identify steps taken in the preceding 3 years to increase data validity, reduce real loss, and reduce apparent loss as informed by the annual validated water audit:

Predictive bench testing and calibration of at least 10% of all customer meters annually. Upgrades from 60W to 100W ERT.

2. Planned Steps (OPTIONAL): If your audit reflects negative real losses or the cost of non-revenue water is greater than 100% of the operating costs (issues for which your audit will not meet code requirements), you will be asked what steps you are planning in the coming year to address these issues. If you already know what steps you plan to take, you may list them here. If not, please prepare a response within 90 days (23 CCR Section 638.6[a]).

Certification Statement by Utility Executive

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in their manual, *Water Audit and Loss Control Programs, Manual M36, Fourth Edition* and in the Free Water Audit Software version 5.

Executive Name (Print)

Shaun Ryan

Executive Position

Water Superintendent

Signature



Date

1/14/2022

Utility Provided